UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 2 7 2012

OFFICE OF
AIR AND RADIATION

The Honorable Fred Upton
Chairman
Committee on Energy and Commerce
U.S. House of Representatives
Washington, D.C. 20515-6115

Dear Mr. Chairman:

Thank you for your letter of November 8, 2011, co-signed by two of your colleagues, asking for responses to questions about the U.S. Environmental Protection Agency's Mercury and Air Toxics Standards (MATS) rule. Our December 8, 2011, response addressed many of your questions and the enclosed document provides supplemental information that completes our responses to the questions you posed.

You observe in your letter that the EPA received more than 900,000 comments on the MATS rule. Hundreds of thousands of those public comments strongly support our efforts to protect children and families from mercury and other toxic pollution. Some of the comments that the EPA received during the public comment process allowed us to make changes to the standards that make them clearer, more flexible, and less expensive, while maintaining human health protections that will provide tangible benefits to American families for generations to come.

The EPA took steps in the final MATS standards to address stakeholder concerns that compliance with MATS could not be achieved within the maximum three-year compliance date authorized under the statute. In the final rule, the EPA described in detail the wide range of situations where we believe an additional year for compliance could be granted by permitting authorities. This fourth year - in addition to the three years provided to all sources - is provided by the Clean Air Act as needed to complete installation of control technologies. The EPA suggests that permitting authorities make this fourth year broadly available to sources that require it to complete their compliance activities, including installing pollution control equipment, constructing on- or off-site replacement power, and upgrading transmission. The EPA is also encouraging the fourth year to be available as needed to units that continue to operate for reliability purposes while other units are installing pollution controls. The EPA estimates that sources generally will have until spring of 2016 to comply – one year longer than our analysis indicates is necessary for most sources.

As part of the Administration's commitment to maximize flexibilities under the law, MATS was accompanied by a Presidential Memorandum that directs the EPA to take a number of steps to ensure continued electric reliability. These steps include: 1) working with State and local permitting authorities to make the additional year for compliance with MATS provided under section 112(i)(3)(B) of the Clean Air Act broadly available to sources; 2) working with stakeholders, as appropriate to promote early,

coordinated, and orderly planning; and 3) making available to the public, including relevant stakeholders, information that describes the process for identifying circumstances where electric reliability concerns might justify allowing additional time to comply. The EPA is in the process of taking a number of steps to implement the directives in this memo.

The EPA is actively engaging power plants and other entities that will be involved in getting power plants retrofitted while maintaining the reliability of the electric grid. The EPA has held, and will continue to hold, a series of discussions with the Department of Energy, the Federal Energy Regulatory Commission, State utility regulators, Regional Transmission Organizations, the North American Electric Reliability Corporation, regional electric reliability organizations, and other grid planning authorities to promote early compliance planning, to support orderly implementation of the MATS standards, and to ensure that any potential, localized reliability concerns are identified and addressed. The EPA has started and will continue discussions with power plant owners and operators to help them understand their responsibilities under the standards and their role in early, coordinated, and orderly planning. The EPA is conducting specific outreach to stakeholders with unique concerns such as rural electric cooperatives, public power facilities, and investor-owned utilities. In addition, the EPA will also engage in outreach to states and permitting authorities to help ensure that the fourth year for compliance is broadly available and that the process for sources to request and states to grant the extensions is clear and straightforward.

Thank you for your interest in this important subject. If you have questions regarding this letter and or the enclosed documents, please contact me or have your staff call Diann Frantz in the EPA's Office of Congressional and Intergovernmental Relations at (202) 564-3668.

Sincerely,

Gina McCarthy
Assistant Administrator

Enclosure

ENCLOSURE

1. The proposed Utility MACT rule, published on May 3, 2011, is currently scheduled to be finalized by December 16, 2011. The public comment period ended August 4, 2011, and according to EPA, it has received over 900,000 comments on the proposed rule, including 22,000 unique comments.

a. Explain how it is feasible for EPA to review and respond by the December 16, 2011, scheduled issuance date to the more than 22,000 unique comments received. Please include in your response the resources, including federal and contractor FTEs, and timetables, that have been allocated for review and responding to public comments.

b. Explain how it is feasible to conduct a thorough and appropriate interagency review of the rule by December 16, 2011. Please include in your response the amount of time that has been allocated for interagency review.

EPA reviewed of all of the comments submitted on the MATS rule and participated in a robust interagency review process. Over 900,000 total comments submitted on the rule, the vast majority are supportive of the finalized standards. Of the 22,000 unique comments, many raised similar or the same issues. To address all of these comments, the EPA marshaled the resources necessary to review and respond to these comments. Included in the response effort were approximately *75* staff from the Office of Air and Radiation, as well as staff from other offices in the agency and contractor resources. The EPA issued a final rule that is fully consistent with the requirements of the Clean Air Act.

2. On October 7, 2011, FERC announced that it will hold a two-day Commissioner-led Technical Conference on November 29-30, 2011, to address the reliability of the Bulk-Power System and emerging issues, including reliability concerns which may arise in complying with EPA's regulations.

a. Does EPA intend to consider and incorporate the results of this technical conference into the final Utility MACT rule? If not, please explain why not.

b. If so, explain how EPA plans to review and incorporate the results of this technical conference into the final Utility MACT rule prior to the December 16, 2011, deadline.

EPA appreciated the discussion and information exchanged at the two-day Commissioner-led Technical Conference held on November 29-30, 2011. As I mentioned in my December 8th letter, I had the honor of speaking at the conference, which was also attended by several EPA staff. I believe the Technical Conference provided an important forum for the exchange of views and that the information presented will be valuable to industry stakeholders, grid planners and operators, state regulators, NERC and the regional reliability organizations, FERC and the EPA as we move forward with the implementation of the MATS rule and our other power sector rules.

3. The North American Electricity Reliability Corporation (NERC) is expected to issue its latest annual long-term reliability assessment in mid or late November 2011.

a. Does EPA intend to consider and incorporate the results of NERC's reliability assessment into the final Utility MACT rule? If not, please explain why not.

b. If so, explain how EPA plans to review and incorporate the results of NERC's reliability assessment into the final Utility MACT rule prior to the December 16, 2011 deadline.

On November 29, 2011, NERC released its annual long term reliability assessment, which included a stand-alone assessment that purports to address the impacts of the EPA's regulations. EPA staff had the opportunity to provide input to NERC with regard to this assessment and was briefed on the draft report prior to its issuance. Although, the EPA respects NERC's important role in this area and values its ongoing relationship, we have expressed concerns that the NERC assessment may cause confusion or misunderstanding.

The EPA sees two fundamental shortcomings in the NERC assessment. First, because NERC assumes regulatory requirements substantially more stringent than those actually proposed by the EPA, the levels of retirements NERC projects are greatly overstated. This is most dramatic with regard to the assumptions about the EPA's proposed cooling water intake structure rule under section 316(b) of the Clean Water Act, which accounts for the majority of retirements NERC projects. With regard to the MATS rule, to which NERC attributes substantially fewer retirements, the analysis appears to assume that many units must install wet flue gas desulfurization and that every unit must have a fabric filter to comply with the rule. This scenario is highly unlikely, given the availability of lower-cost control options for most facilities. Second, the NERC assessment assumes that utilities, grid planners and operators, and state and federal regulators take no action to address any localized reliability issues that may emerge in response to these projected retirements. In the real world, utilities, grid planners and operators, and utility regulators have a demonstrated track record of successfully identifying such issues and responding through construction of new generation, transmission upgrades and implementation of demand-side measures.

4. The preamble to EPA's Utility MACT rule, published in the *Federal Register* on May 3, 2011, states that:

"EPA itself has already begun reaching out to key stakeholders including not only sources with direct compliance obligations, but also groups with responsibility to assure an affordable and reliable supply of electricity including state Public Utility Commissions (PUC), Regional Transmission Organizations (RTOs), the National Electric Reliability Council (NERC),' the Federal Energy Regulatory Commission (FERC), and DOE."

a. Please describe EPA's outreach to state public utility commissions, providing the date of any contacts, the persons involved in the discussions, the nature of the discussions, and the EPA action and disposition of any such action responsive to the discussion.

b. Please describe EPA's outreach to RTOs, providing the date of any contacts, the persons involved in the discussions, the nature of the discussions, the EPA action and disposition of any such action responsive to the discussion.

c. Please describe EPA's outreach to the NERC, providing the date of any contacts, the persons involved in the discussions, the nature of the discussions, the EPA action and disposition of any such action responsive to the discussion.

d. Please detail any meetings EPA has had with other regional and local market stakeholders in which EPA's power sector regulations have been discussed.

e. Does EPA plan to participate in any meetings in the future with state PUCs, RTOs, NERC, or other regional and local stakeholders? If yes, please indicate the specific meetings EPA intends to participate in. If not, please explain why not.

The EPA has had the benefit of substantial, detailed and often constructive comments on reliability issues related to the proposed MATS rule from a broad variety of stakeholders- including utilities, Regional Transmission Operators, and state public utility regulators. In addition, the EPA actively consulted with a broad range of these same stakeholders, as well NERC and its affiliated regional entities, at various points in the rulemaking process. The agency is now in the process of initiating broad outreach efforts with these same stakeholders, in consultation with FERC and DOE, as we move towards implementation of the MATS rule.

5. At a March 14, 2011, meeting described in responses to the Committee provided by FERC Chairman Wellinghoff on July 27, 2011, "EPA CAD staff proposed to conduct bi-weekly conference calls with FERC to keep each other informed of any developments." In his September 14, 2011, testimony before the Committee's Subcommittee on Energy and Power, Chairmain Wellinghoff indicated that discussions between FERC and EPA were "ongoing." However, based on information that had been provided with Chariman Wellinghoff's July 27 response to the Committee, it appears that substantive contacts between FERC and EPA ceased after May 3, 2011.

a. Have there been subsequent contacts since May 3, 2011, between FERC and EPA regarding the potential impacts of EPA's power sector rules on reliability? If yes, please provide a record and description of all such contacts, and provide copies of all documents that reflect those contacts.

The EPA actively consulted with DOE and FERC on reliability and other issues throughout the MATS rulemaking process including discussions after May 3, 2011. In addition, DOE and FERC each participated in the interagency review process for the proposed MATS rule and for the final rule. The EPA is now actively engaged in coordination with FERC and DOE as we enter the implementation phase for the final MATS rule, including through interagency discussions and coordinating participation in stakeholder engagement.

6. The record of the discussions between EPA and FERC indicate that FERC on a number of occasions recommended that EPA undertake a cumulative impact analysis of EPA's power sector regulations.

a. What has EPA done in response to FERC's recommendations? Has EPA conducted such a cumulative analysis? If yes, please provide a copy of any such analysis.

The agency routinely configures regulatory analyses to gauge the effect of new policies or programs from a baseline which reflects other established policies and programs. In the case of the MATS rule, for example, the incremental effect of MATS was evaluated using a baseline which reflected CSAPR and other established environmental regulatory requirements for affected sources. The RIA for MATS, therefore, is a cumulative analysis in that it reflects the cumulative effect of rules on the books as well as

the proposed new rule being evaluated. The results of the MATS analysis found that even with CSAPR and other established environmental protection rules in effect, electricity prices are expected to remain well within historical levels. With both MATS and CSAPR and other rules in place, retail electricity prices in 2015 and 2020 are projected to be lower than they were in 2010, with the 2010 price level itself more than 20 percent lower than observed 30 years ago. The effect of MATS on natural gas process is also expected to be minimal, with natural gas prices only increasing by 0.3 to 0.6 percent on average over the time horizon of 2015 to 2030. Our analysis of the final MATS rule projects that MATS and CSAPR combined will result in only a modest level of power plant retirements and will not adversely affect capacity reserve margins in any region of the country. Finally, the agency believes that many of the purported cumulative analyses that others have performed have made inaccurate assumptions about the requirements of rules that have not yet been finalized, notably by assuming requirements under the Clean Water Act Section 316(b) cooling water intake rule that are significantly more stringent than what has been proposed.

7. In his September 14, 2011, testimony before the Committee's Subcommittee on Energy and Power, FERC Chairman Wellinghoff referred to a "safety valve" approach to address the impact EPS's power sector rules could have on electric reliability.

a. Is EPA considering a "safety valve" approach? If so, describe the safety valve approach EPA is considering.

b. What legal authority does EPA have to implement the safety valve approach contemplated?

c. Has EPA consulted with stakeholders, other than RTOs, regarding a safety valve approach, such as FERC, NERC, other planning authorities, state public utility commissions, or industry stakeholders?

d. Please describe all discussions regarding a safety valve approach that have occurred between EPA and FERC, RTOs, ISOs, other regional bodies, NERC, or state public utility commissions.

e. Does EPA intend to provide public notice and an opportunity to comment on any safety valve proposal being considered, including the proposal submitted to EPA by various RTOs on August 4, 2011, and October 14, 2011? If not, please explain why not.

f. Please provide all documents relating to EPA consideration of a safety valve proposal or approach to address reliability issues in the agency's proposed power sector rulemakings.

A number of stakeholders have provided public comments to the EPA proposing various alternative "safety valve" mechanisms to address local reliability issues should they emerge. Although the agency has not adopted these proposals per se, it has taken several actions to address the underlying concerns. Specifically, in the preamble to the final MATS rule, the EPA has provided guidance with regard to applicability of the fourth year compliance extension that permitting authorities may grant under CAA Section 112(i)(3)(B). Although this provision confers the ultimate discretion to provide this one-year extension to the relevant permitting authorities, the preamble to the final MATS rule provides guidance as to scenarios in which this authority may be exercised. Please see the MATS Rule Preamble at 581-588.[1]

[1] A pre-publication version of the final MATS Rule can be accessed at http://www.epa.gov/mats/pdfs/20111216MATSfinal.pdf.

In general, the preamble articulates the EPA's view that the additional year under this provision should be available in a broad range of situations. It should be available where necessary to install controls on the relevant unit or to construct replacement power on the same site as the unit. In addition, the preamble states that the additional year may be available in a number of situations in which pollution controls are not being directly installed on the relevant unit, but where the unit must run in order to avoid a serious risk to electric reliability in certain circumstances. In addition, the EPA's Office of Enforcement and Compliance Assurance (OECA) on December 16, 2011, issued a memorandum discussing the EPA's intended approach regarding the use of administrative orders under CAA section 113(a) with respect to sources that must operate in noncompliance with the MATS rule for up to a year to address a specific and documented reliability concern. The policy can be accessed at: http://www.epa.gov/compliance/resources/policies/civil/erp/mats-erp.pdf. The policy indicates that the EPA does not intend to seek civil penalties for violations of the MATS rule that occur as a result of operation for up to one year in conformity with an administrative order issued in connection with the policy, unless there are misrepresentations in the materials submitted by a unit owner/operator in a request for such an order.

8. In his September 14, 2011, testimony to the Committee, Chairman Wellinghoff testified that EPA's estimate of nation-wide generator retirements was "irrelevant" and that the real focus should be on localized reliability impacts.

a. Has EPA prepared a new reliability analysis that evaluates localized reliability impacts? If yes, please provide copies of any such analysis.

b. If not, does EPA intend to prepare a new reliability analysis that evaluates localized reliability impacts? If yes, when does EPA plan to release that analysis? If no, please explain why not.

EPA provided an updated analysis of the impacts of the MATS and CSAPR rules in the final MATS rule on resource adequacy at a regional level for 32 subregions of the United States. This analysis is discussed in the preamble to the final rule, and a copy of the relevant technical support document can be accessed at: http://www.epa.gov/ttn/atw/utility/utilitypg.html. In addition, in December 2011, the Department of Energy (DOE) released a report presenting an independent assessment of generation resource adequacy under the final CSAPR and proposed MATS rules. The report is posted on DOE's website and can be accessed at: http://energy.gov/sites/prod/files/2011%20Air%20Quality%20Regulations%20Report_120111.pdf The DOE assessment uses a "stringent test case" analysis that assumes use of control technologies substantially more expensive than are required by the EPA' s actual rules. The report determines that, even in this highly conservative hypothetical scenario, capacity reserve margins are preserved in every region of the country, with the addition of only 1 gigawatt of additional unplanned natural gas generation (or equivalent demand side resources) necessary in a single region of the country. The report also concludes that, assuming prompt and responsible action by regulators and utilities, the timelines associated with construction of new generation and retrofit installation of pollution control technologies are generally comparable to compliance timelines under the Clean Air Act. It concludes that if localized reliability concerns arise, the Clean Air Act provides flexibility mechanisms to bring sources into compliance over time while maintaining reliability.

In the MATS preamble and other statements, the EPA has acknowledged that, even where generating capacity is adequate on a regional basis, it is possible that localized reliability challenges may emerge in connection with particular plant retirements or delays in the installation of pollution controls. The EPA remains confident that the Clean Air Act provides adequate flexibility to address any such circumstances and to bring sources into compliance with regulatory requirements while maintaining reliability. For example, as noted above, the EPA has taken actions in connection with the final MATS rule to address the compliance timeline concerns raised by some stakeholders. These include the provision of guidance with regard to the availability of the fourth year extension under CAA Section 112(i)(3)(B) and the OECA policy memorandum issued on December 16, 2011.

9. In his July 27, 2011, response to the Committee's May 9, 2011, letter, Chairman Wellinghoff states that:

"In discussions concerning the EPA efforts to model the effect these regulations could have on electric generation retirements, Commission staff recommended that such efforts should include the modeling of transfer limits, placement and timing of capacity additions and the cumulative impact of all the upcoming EPA regulations. Specifically, the Commission staff identified the following reliability considerations: (1) regional resource adequacy, (2) deliverability and transmission flows on the grid, (3) black start units and (4) voltage and frequency response."

a. Has EPA accounted for any of these factors in assessing the impact of its regulations on electric reliability? If so, please explain how.

b. Did any of EPA's reliability assessments include modeling of transfer limits within regions? If so, please explain how.

c. Did any of EPA's reliability assessments account for black start units? If so, please explain how.

d. Did any of EPA's reliability assessments account for voltage and frequency response? If so, please explain how.

The EPA's modeling focused on two issues: regional resource adequacy and number of retirements. The number of retirements provide an upper bound of the magnitude of other reliability criteria mentioned in your letter such as: transfer limits within regions, blackstart units and voltage and frequency support. Because reliability issues would be related primarily to retirement of units, small retirement projections show that any reliability impacts related to these other criteria would be smaller and more local in nature. As explained elsewhere in this response, the Clean Air Act provides adequate flexibility to address any such local challenges that may emerge.

10. According to Chairman Wellinghoff's July 27, 2011, response to the Committee, as recorded at a November 4, 2010, meeting, "EPA CAD staff has been seeking assistance from FERC staff in analyzing the effect on reliability of the Maximum Achievable Control Technology (MACT) rule for which they would provide further data as produced by their model in December 2010."

a. What type of assistance did EPA seek?

b. Did FERC provide it? If so, describe specifically the assistance FERC provided and please provide all documents relating to such assistance.

Conversations between FERC staff and EPA staff during the development of the MATS rule were very productive. Among other things, FERC staff provided greater understanding to help the EPA assure that it adequately addressed potential local reliability challenges and that it consulted with the right additional parties (including NERC and the RTOs) as it considered options to address localized reliability concerns.

11. FERC staff appears to have expressed concerns to EPA that EPA's assumptions regarding the timeline necessary for construction of new resources were too aggressive and did not reflect realities of planning, permitting, financing and constructing new generating plants.

a. Please provide any EPA evaluation or response to concerns of FERC staff.

b. Please explain how the timing of EPA's regulations, and in particular the compliance deadlines in the CSAPR and Utility MACT rule, are consistent with the planning horizons of the electric sector.

The EPA does not project significant new builds related to these rules and therefore, to the extent that new units were needed to address localized reliability issues, they would most likely be simple cycle turbines which could be installed within a three year time-frame. The one year extension that could be granted by the permitting authority would address any very limited cases where more time was needed.

As the EPA has explained above and in the preamble to the MATS rule, its analysis indicates that it is highly unlikely that the MATS rule will result in any adverse effects on regional resource adequacy in any region of the country. Moreover, the EPA believes that most, if not all units, will be able to complete the installation of controls within the default 3-year period set forth in the statute. The EPA believes the guidance provided to permitting authorities in the preamble to the final MATS rule with respect to the range of circumstances in which the one year compliance extension under CAA section 112(i)(3)(B) may be granted, further alleviates any concern that utilities will not have sufficient time to comply. To the extent that an isolated, localized reliability issue emerges that could not be addressed solely through the one year extension under CAA section 112(i)(3), an owner/operator may seek a one year schedule to come into compliance, as discussed in the enforcement policy document.

12. According to Chairman Wellinghoff's July 27, 2011, response to the Committee, in an October 27, 2010, meeting between EPA, FERC and CEQ, the following statement was recorded: "FERC staff stated that renewable generation may not provide a one to one replacement for the capacity that is retiring given the different characteristics of the units."

a. Does EPA believe that renewable generation provides a one to one replacement for coalfired generation capacity that may retire as a result of these rules? If so, please describe the basis for such conclusion and the effect it has on EPA's analyses of the effect of its regulations on the reliability of the electric grid.

b. Do any of EPA' s analyses of the Utility MACT rule include an assumption that renewable generation provides a one to one replacement for coal-fired generation capacity that may retire as a result of these rules? If so, please describe which analyses make such an assumption and the relevance to the analysis undertaken.

In conducting all of its resource adequacy analysis, the EPA incorporates availability assumptions about different types of generation that address the points that Chairman Wellinghoff made regarding renewables not providing one-to-one replacement power. The EPA's modeling of renewable resources accounts for the fact that they are typically not available at all the times a traditional coal-fired unit is available, so they are unable to provide one-to-one replacement power.